THE GENESEE FARMER.

VOL. VII. ROCHESTER, N. Y. NOVEMBER 18, 1837. NO. 46.

PUBLISHED BY LUTHER TUCKER.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan. 1, or with the half volume, July 1. No subscription taken for less than six months.

☞ THE MONTHLY GENESEE FARMER is made up of selections from this paper, and published on the first of each month, forming, with Title-page and Index, an annual volume of 200 pages, at the low price of FIFTY CENTS a year, *payable always in advance.*

GENESEE FARMER.

SATURDAY, NOVEMBER 18, 1837.

Migration of Birds.

Passing a few weeks since along the margin of one of the smallest of that beautiful chain of lakes that form so remarkable a feature of the lake slope of Western New York, and admiring the splendid rainbow colors of the autumn woods, reflected from its tranquil surface, we were greeted by the well known cry of the Loon, *Colymbus glacialis*, several of which were floating within sight, their white breasts contrasting finely with the dark mirror-like color of the water, and the rich hues of the reflected woodlands. They had called to rest themselves for a few days, on their annual migration from the lakes of the far north to a more favored clime, and when overtaken by the chill blasts they had left behind, were ready at a moment's notice to resume their flight. "We shall have rain," said a respectable old gentleman whom we met a few minutes afterwards, "the loons are too musical for fair weather;" and his prediction was verified in a few hours.

Nuttall says—"Far out to sea in winter, and in the great western lakes, particularly Huron and Michigan, in summer, I have often heard on a calm fine morning, the sad and wolfish call of the solitary loon, which like a dismal echo seems slowly to invade the ear and rising as it proceeds, dies away in the air. This boding sound to mariners, supposed to be indicative of a storm, may be heard sometimes for two or three miles, when the bird itself is invisible or reduced almost to a speck. The Indians, nearly as superstitious as sailors, dislike to hear the cry of the loon, considering the bird from its shy and extraordinary habits, as a kind of super-natural being. By the Norwegians its long drawn howl, is with more appearance of reason, supposed to portend rain." The loon has one peculiarity we have witnessed in no other bird, that of swimming, or flying under water, as it were, with the rapidity of an arrow, a feat we have often witnessed when the fine days of the Indian summer seemed to invite all the birds that had lingered on their passage, to sports and pastimes.

The migration of birds is one of those extraordinary provisions of nature, depending for its accomplishment on what we for want of a better name are accustomed to call instinct; but which in many cases seems more like one direct and unerring emanation from the Deity, than the boasted reason of man. "When certain species of birds," says the Rev. Mr. Bachman, "at their first season of breeding, being without experience, build all their nests alike, both in form and materials, this may be called the result of instinct. On the other hand, when man guards against danger, or makes provision for the wants of life, or seeks relief from diseases, by the application of medicines, he acts from reason, because he is instructed by the experience of the past. When birds at certain seasons of the year, change the climate, in anticipation of heat or cold, they act from instinct, because, to many of them it is their first migration; and as they often migrate singly and not in flocks, in such cases no experience can aid them. On the other hand when man makes provision for the changes of season and climate, he acts from reason, and is instructed from his own experience or the experience of others."

A very large proportion of birds migrate, food or climate being usually the exciting causes, and this is particularly true of such as live or breed in northern latitudes. There are very few that are able to resist the cold and snows of our latitude, though birds have blood of a high temperature compared with man. Those that remain with us are mostly carniverous, living on such animals as chance or the hunter may throw in their way; such as Owls, Hawks, Ravens, the Canada Jay, and the Crow. Some remain that live on the buds of trees, as the Patridge or Grouse, the Crossbills, and the Grosbeaks; and a few of the smaller birds gain a precarious subsistence from the seeds scattered in barnyards, and from weeds rising through the snow. Two or three species of sparrow, familiarly denominated snowbirds, are of this class. But all the flycatchers, and warblers, those beautiful tenants of our groves and orchards, that feed on worms and insects; all the different families of the swallow, the night hawks, and whippoorwill, the tanager and the oriole, early obey the wonderful instinct of nature, and seek in more favored climes the food denied them in this. They are followed by the divers, the snipes, wildgoose, ducks, the sand birds, in short all that frequent our waters and subsist on food from our fresh water ponds and rivers.

The habits of migratory birds were but imperfectly understood, until it was found that many kinds traveled mostly by night; and experiments made on the rapidity with which birds fly, and the time they are able to sustain themselves on the wing, have dispelled many of the errors which were formerly entertained on this subject. The wild pigeon of our forests, flies at the rate of a mile in a minute and a half, or forty miles in an hour, and his flight is continued by night as well as by day. This would enable him to pass from Georgia to our latitude in a few hours, and at a single flight; and hence the fact that geese, ducks, and pigeons have been taken in the northern states with undigested rice in their crops, which must have been gathered in the rice fields of the south. The swallow is able to fly twelve or fifteen hundred miles in twenty-four hours, and is thus enabled to reach his winter residence in Cuba or South America with ease. To avoid inconvenience during their night flights, birds fly much higher by night than by day; and almost every one has heard the hoarse notes of the night heron, or the harsh cartwheel crake of the snipe, when high in the air they were on their night migration. The great hooping crane can be occasionally heard during the day, as he passes without pausing over mountain and river, but at such a height as to be wholly invisible. We witnessed a curious illustration of the height at which the Canada goose sometimes flies, a year or two since. The night had been cold with squalls. The morning was fair with an occasional fleecy cloud at great height. About 9 o'clock the cry of wild geese was distinctly heard, but it was a long time before they could be seen, as against the blue sky they were invisible; at length a glimpse of them was caught against a white cloud like a row of small specks, and after they had passed through it, they were again seen with a glass. They had evidently lost their course during the night, and were seemingly unable to regain it, as they continued wheeling round through and over the clouds for nearly a quarter of an hour.

One of the most astonishing as well as pleasing facts connected with the migration of birds is the regularity with which they revisit their former breeding places, after an absence of several months and a flight of thousands of miles. Birds marked so as to be known, have been observed to return to the same nest for many successive years, as the martin, swallow, bluebird, and wren. A phebe bird has been known to occupy the same arch of a bridge or the same cavern by the river for years; and it is very rarely indeed that the rights of the migratory birds are intruded upon, or they are obliged to expel usurpers from their former habitations. That welcome bird, the cliff swallow, so lately domesticated in the United States, the common barn swallow, and the chimney swallow, are found to return to their cluster of mud built nests, the barn, or the chimney they occupied the year before, with as much regularity, and certainty almost, as the seasons. The little song sparrow opens its song on the same hedge and builds in the same thicket of grass and leaves; and the meadow lark, and bobolink, wander as little as possible from their former breeding places. We greet them on their return as old friends, and listen to songs that awake the remembrance of by-gone years, and think as we hear their warbling—"what would this world be, without songs and flowers."

Closer and more extended observation has exploded the notion that some kinds of birds hybernate, or spend the winter without migrating, in a torpid state. This was supposed to be the case with the Rail or Soree of Virginia and the barn and chimney swallows. The rail appears early in August in great numbers on the reedy shores of the southern Atlantic bays and rivers, and remains until October, when it disappears suddenly and completely, not an individual remaining where the day before they might be counted by thousands, and it was supposed they took refuge in the mud of the rivers. It is now ascertained they always migrate by night, which accounts for the suddenness of their appearance and disappearance. In our forests we sometimes find hollow trees nearly filled with feathers, bones and remains of decayed birds, and it was supposed that in these trees the chimney swallow lay in a state of torpidity through the winter season. It is now known, however, that these trees are the favorite resort or roosting places of these birds, while collecting for their migrations; the trees serving the purpose of chimneys in older countries. A few years since, a flock of these swallows collected for migration on Long Island, made their rendezvous in a chimney near Brooklyn, and being driven into a room below were captured to the number of several thousands. The bank or cliff swallow also collects in great numbers previous to migration, and these birds are so sensitive of cold, that sometimes before their arrangements are completed a premature frost will so benumb them that they may be taken in great quantities. The hint thus received is not disregarded; and about the time they disappear in the United States, they appear in the equatorial regions of America, where it is ascertained that they, in common with many other migratory birds, rear a second brood of young.

It sometimes happens that birds of delicate habits and very sensitive to a depression of temperature, return from their residence in the south before the state of the seasons in this latitude warrants such a movement, and the consequence is that numbers perish. In the year 1834, during the severe frost and snow of the 14th of May, numbers of the scarlet tanagers were picked up in the woods and fields, enticed from their winter homes by the previous warm weather; and last spring, after some fine warm weather in the same month, followed by a low temperature, we observed at one time some sixteen or eighteen of these birds, on the sunny side of a piece of woods, scarcely able to fly and evidently repenting their premature movement.

The changes in appearance which many birds undergo previous to migration must have been noticed by all.—These occur in a striking manner in that familiar bird, the bobolink or meadow blackbird, as he is called in the north, or rice bunting of the south. At the time of their arrival from the south, and during the fore part of the year the male is easily distinguished by his sprightliness, his variegated and brilliant colors, and his spirited song. After the young make their appearance abroad his song gradually ceases, his color fades, and before the period of migration arrives, he has assumed the brown sombre hue he wears through the winter, and in voice and appearance is with difficulty distinguished from the young or the females of the flock. Such is his appearance, when in countless thousands on the progress southward, they find food and rest in the rice fields of Carolina and Georgia.

There are some kinds of birds that perform their migration in such flocks as to be productive of serious injury to farmers by depredating on crops not housed and secured at the time. Late sown oats not unfrequently attract the blackbird in multitudes; and we have seen sad havoc made in the fields of golden corn by these same migratory hordes. The crow too, since its numbers have so greatly increased, is becoming seriously troublesome at the period of annual migration. It not only attacks the cornfield, or such grain as may be lingering in the fields, but plunders orchards of their sweet apples, and ravages the fields of new sown wheat. Immense flocks, almost rivalling those that during the winter congregate in the swamps and marshes of the Delaware bay and the eastern shore of Maryland, have this year shown themselves in various parts of the country, and wherever they have for a few days located themselves they have done great damage in the ways enumerated. We have this year heard our farmers speak of their orchards in which every sweet apple was destroyed, and of their new sown wheat fields in which every uncovered grain was picked up, and the just sprouting ones gathered to such an extent that much injury it was feared in some instances would ensue. The distance to which the crow retires from our latitude is so limited, that a day or two of moderate weather and a south wind usually brings up more or less of them to feast on the animals that during ours winters, owing to the want of proper food or great negligence, perish in far too great numbers on our farms. It is indeed probable from their hardy habits, and carniverous natures, that some of these birds do not leave the country at all, but during the most severe weather shelter themselves in the thickest pine or hemlock swamps.

Every one must be sensible of the pleasure he has experienced, when after our long and gloomy winters the approach of spring and summer is announced by the sweet song of the sparrow, and the familiar notes of the robin and bluebird. These birds are the earliest to show themselves with us, and announce that the stern dominion of winter has passed away. Later comes the tanagers and the oriole, the barn swallows and the other families of the fly catchers; but we can hardly deem ourselves secure from the sleet and snow until the shrill twitter of the chimney swallow is heard, usually the first week in May, a gratifying proof that 'the winter is over and gone,' and that the labors of the husbandman may with safety be resumed. The song of the brown thrush, like the blossoming of the dog-wood, is by many considered as indicating the time to commence planting in the north, while in the south, the cry of the night hawk, serves with the cotton and corn grower, to announce the proper period of commencing operations. Whatever justice there may be in these suppositions, it is clear that birds by their mysterious instinct appear to decide in most cases correctly on the weather; and that a knowledge of their habits, independently of the many sources of pleasure the pursuit opens to us, may be of essential use in the prosecution of agriculture.

Wheatworm.

We regret very much to find from some of the eastern journals a confirmation of the opinions we had been led to form of the inefficacy of lime for the prevention of the wheat worm. From the confident tone of the Yankee Farmer, and the confidence still reposed in the remedy by that eminent agriculturist, Mr. Coleman, we were in hopes that the failure in this state, had arisen from some defect in the quality of the lime, or in the period of its application. A late number of the Maine Farmer in addition to the testimony of many who have used lime and ashes in that state the present year, contains an able paper on this insect from Mr. Jenne of Peru, in which he says,—"It would be nothing but vanity or obstinacy in any one to speak with much confidence as to any remedy for preventing their attacks. Lime and ashes have been tried in this neighborhood without success, and as to the suggested remedy of smoking our fields with brimstone, I have little faith in the process." Mr. Jenne thinks it possible to dislodge the fly from its lurking place at the roots of the wheat where it takes refuge during the day, by watering the wheat with some liquid, offensive or destructive to them, and the suggestion is worthy of consideration and experiment in those sections where they are the most prevalent. As the larvæ must remain in the ground of the wheat field during the winter, would not late ploughing be as effective in their destruction, as some experiments would seem to make it in the case of the wire worm. We are at present inclined to think this the most hopeful method of attacking them.

John Hacke of Reading, Pennsylvania, has announced that he has an infallible mode of destroying the Hessian fly; and a Solomon W. Jewett of Weybridge, Vermont, is equally confident that he has discovered an effectual method of freeing our fields from the wheat worm; yet strange as it may seem, neither of these gentlemen, have, to our knowledge, communicated their remedies to the public. We trust there are few farmers in our country possessed of secrets of such importance, that would hesitate a moment in laying them before the public for the benefit of the community. Farmers should be above those feelings that actuate the patentees of pills and panacas, or the ten thousand worthless, or valuable it may be, inventions of the present day; and, whatever useful knowledge they may acquire, or important discoveries in agriculture they may make, all should be early and freely thrown before the public, for the benefit and advantage of all. But if our anticipations from the use of lime, ashes, sulphur, or any of the preventives hitherto recommended should fail, it should only increase our exertions and enlarge our circle of observation and experiment. In attacking the enemies of his crop whether they are animal or vegetable, the farmer should be the last to despond, or despair; to conquer may require time, labor and perseverance; but these, properly directed, will ensure success.

Obituary.—We regret to learn that our old and esteemed friend, THOMAS G. FESSENDEN, Esq., Editor of the New England Farmer, died on Saturday night. He was struck with apoplexy on Friday night, and lingered until the next evening, without having recovered his senses after the first shock.—*Boston Courier.*

Manufacture of Sewing Silk.

Several of the Silk Factories in New-England, are engaged in the manufacture of sewing silk, and the article they are making is pronounced by good judges to be equal to the best Italian. The fact, therefore, that sewing silk of the first quality can be manufactured in this country, is established beyond a doubt, and the only question remaining to be answered is, can it be manufactured at a profit to the manufacturer? Touching this question, we have been furnished, by the superintendent of one of these factories, with an extract from its books, showing the profit on a lot of sewing silk manufactured from the 7th of September, 1836, to the 28th April, 1837, a period of seven months and twenty-one days. The raw material consisted of five bales of Bengal silk, and a small lot of American silk; and the statement exhibits the marks, numbers, and weight of each bale, and also the items of expense incurred in its manufacture; but as these are not essential to the attainment of our object, which is merely to show the nett profit on the whole we have condensed as follows:

	Dr.
718¼ lbs. Bengal raw silk, at $4 50,	$3,231 56
42 lbs. American raw silk, at $5 00,	210 00
Labor,	1,381 33
Dyeing, soap, &c., estimated at	303 24
	$5,126 13
Nett profit,	2,463 97
	$7,590 10
	Cr.
722lbs. 13oz. 14dr. sewing silk, sold for $10 50,	$7,590 10

By the foregoing statement, it will be seen that the profit on $3,441 59, invested in the raw material, was $2,473 97, more than 70 per cent., after the payment of all expenses. This will be admitted to be a very liberal manufacturer's profit, unless it be diminished by the interest on the buildings, machinery, fixtures, &c., necessary for the carrying on of the business. That this is not the case, the following facts, furnished by the same gentleman, satisfactorily prove. The cost of machinery, sufficient to manufacture 75 pounds a week, which is more than double the quantity in the statement, does not exceed $2,000, and may be put up in a room 40 by 60 feet, and be operated by a steam engine of 3 horse power.

With these facts before him, any business man can calculate the profits of the other branches of silk manufacture sufficiently accurate for ordinary business purposes. The machinery used is simple and cheap compared with that in the manufacture of cotton and wool; and one very important and expensive process in the manufacture of a fabric, to wit, spinning, is performed by the worms. All that is necessary in silk manufacture is reeling, throwing, or doubling and twisting, and weaving; these are simple operations, and with dyeing, &c., constitute the construction of those beautiful fabrics of which Europe and India are so justly proud. It is a mistaken idea that silk manufacture requires expensive and complicated machinery, and skill, which American ingenuity cannot attain; the former is simple, and the latter equal if not superior to that of any other country in the world.

By these statements and remarks, we would not, however, be understood as recommending to manufacturers to engage largely in the silk manufacture, in the present state of its culture in this country—it is in its infancy, and years will probably elapse before the raw material, of domestic growth, can be procured to supply the establishments which are already in operation Our object is to show that its manufacture furnishes good profits, in order that farmers may be encouraged, and induced to engage in the production of the raw material. Most manufacturers are already aware of its profits, and are ready to make large investments in the business, as soon as they can depend upon a full supply of American stock; but farmers are slow to engage in the culture on account of a mistaken notion that it is attended with difficulty, both as respects production and sale. Silk is as easily cultivated as cotton, or any other crop, and its sale as certain, either at home or abroad.

In connexion with the manufacture of sewing silk in factories, we intended to have said something in relation to its manufacture in families, but must defer it to a future number. We will, however, say, that it is the most profitable employment in which the females of the family can engage, and experience has already proved that the skill and ingenuity which they ordinarily possess is all that is required to enable them to make a good article.—*Silk Culturist.*

Buckthorn Hedges.

This is the right season for propagating plants suitable for hedges; and among the variety of shrubs and trees recommended for that purpose, the preference, by good judges, is, we believe, given to the Buckthorn, *Rhamnus Catharticus.* We cannot better exhibit proofs of this assertion, than by giving the following report on live hedges.

The Massachusetts Society for the promotion of Agriculture, in the view that it was their duty to take of those objects to which public attention might be beneficially invited, have thought that in the progress of the culture and improvement of the country, Live Hedges would, in many places, become highly important, and even necessary, where stone is not to be had, and timber, as must soon be the case, shall become more valuable for other uses. The beauty, permanency and efficacy of this mode of enclosure, is with foreigners and many of our own countrymen, becoming a subject of taste and admiration. It is not our intention to deny the efficacy or expediency, in most places, at present, of a good rail fence, or what is better, a strong stone wall. But as our divisions of land multiply, these materials in many places, will become more scarce and difficult to be had. As this shall occur, the introduction of live hedges will come into use here, as they prevail elsewhere. A gradual introduction of them must be useful, and add a verdure and beauty to the face of the country, as its cultivation increases. Under this impression, the Trustees of the Massachusetts Society were induced to offer a premium of $30 for the best Hedge, not less than 100 rods, which shall be in the most thriving state in 1833.

On this subject, the Committee on Live Hedges have a pleasure in presenting to the public, the following communication of E. Hersey Derby, Esq. It will be seen that he has, by well tried experiments, estabiished the perfect adaptation of the Buckthorn (Rhamnus Catharticus) to our climate, as well as its preference over several other plants.

They therefore unanimously award to E. Hersey Derby, Esq., the premium proposed of $30 for his hedge of upwards of 100 rods, and recommend that his detailed and useful communication on this subject be printed.

By order of the Committee.

JOHN WELLES, Chairman.

SALEM, Nov. 30, 1833.

The Committee on Fruits and Live Hedges:

GENTLEMEN: Please consider me an applicant for the premium offered by the Society, for the best Buckthorn Hedge, not less than 100 rods, which shall be in the most thriving state in 1833. On measuring mine I find I have over 118 rods of the Buckthorn Hedge, which I have reason to think would be considered at least equal to any in this country.

The Trustees have generally examined the state of it the present season. Should it be thought proper, I will make a few observations on my experiments in hedging.

I have been for a great many years, fully convinced of the superiority of live hedges for efficacy and economy. I began by setting out my first hedge about thirty years since, of the English hawthorn; the result was far from satisfactory; the plant, being not adapted to our climate, is injured by our summer drouths; frequently experiences blight early in August, and by the first of September, assumes a wintry appearance. My next experiment was with the Three Thorned Acacia; to this hedge I devoted the most careful attention; but the result was equally unsuccessful. The plants ran up without interlacing, and the thorns growing only on the upper branches, the stems below were not thick enough to serve as a fence; it was besides, too tender a plant to bear our severe winters. I also tried the crab apple with but little better success. About 1808, there was standing in the garden of the venerable Dr. Holyoke, of this town, which adjoined that of my brother, a large tree of the Buckthorn, or Rhamnus Catharticus. In digging the latter, the gardener found several young plants, which had grown from seed shed by this tree. They were given to me, and set out in a nursery; finding they grew very rapidly, I was induced to set them out for a hedge, some time in 1809, and in this attempt I was entirely successful. The length of this hedge is about 20 rods; has been a good fence over 20 years, and is at the present time in a fine healthy state, not a single plant having failed since it was first set out. It presents a mass of verdure from early spring until late in the autumn, and is completely impervious, affording entire protection to the land it encloses. It being my first experiment with the plant, I did not head it down so low when young as I have since found it advisable to do: the consequence is that it is not so thick at the bottom as any of my others set out since. Finding it so hardy a plant, and so well adapted to hedges in our climate, I have been induced to cultivate it very extensively, and have at different periods, extended my hedges till they measure nearly 120 rods in length.

The method I would recommend in setting a hedge, would be to place the plants in a single row, about nine inches apart, either in the spring or fall of the year; if in the fall, I should clip it the next spring, within six inches of the ground, which will cause it to be quite thick from the bottom; and after pruning, can be made to suit the pleasure of the cultivator. I have also tried plashing: it was recomm nded to me in 1818, or '19, by my gardener, (an Englishman,) and I allowed him to try upon a young hedge of crab-apple, but the hedge never flourished afterwards, and I at last pruned away the branches he had interwoven, and lost four years' growth by the experiment. I have never found plashing necessary for the strength and beauty of a Buckthorn hedge, the natural growth of the branches being sufficiently interlaced. Three years' careful management in the way I have described, is sufficient to form a perfect hedge, nearly as thick below as above.

I am, gentlemen, very respectfully,

Yours, &c.,

E. HERSEY DERBY.

We have no doubt but the Buckthorn is not only superior to any other plant or shrub, as material for hedges, in consequence of its possessing the good qualities above mentioned, but its perfect freedom from the annoyance of insects, adds much to its value. The bitterness of the juices of this plant, preserves it from the borer, worms, &c., and it is always cleanly and a beautiful object. We understand that Mr. Derby has on hand both seeds and slips for propagating Buckthorn Hedges.—*N. E. Farmer.*

From the Backwoodsman.

Working of Oxen.

MR. RUSSELL,—Under the agricultural head of your last paper, I read, with much gratification, your request that practical farmers would send you, for publication, any articles or hints that would be useful to the cultivator of the soil. I am a farmer, Sir, and take pride in cultivating the earth. I have introduced, within a few years, many important improvements into my farming operations. Among them is the substitution of oxen, in many of the labors of the field, for horses. I fully believe, from my own experience, that if the farmers of Illinois would employ fewer horses, and depend more upon oxen, it would add greatly to the wealth of the state.

I had sat down to give you the result of my experience, when the communication of the Hon. Levi Lincoln, to the Secretary of the Pennsylvania Agricultural Society, upon the same subject was put into my hands. He says; "the best broken oxen are those which are early trained, and accustomed to the yoke with occasional light work.—They are often broken at as early as one or two years of age, with gentle and patient usage. At this period they are more docile and tractable, and it is thought become more powerful by being sooner accustomed to each other, and to the application of their strength to the draught. I believe they may be taught to travel in almost any gait: certain it is, the rate at which oxen differently broken will walk with their load, would seem incredible to a person ignorant of the difference in the mode of their training. To accustom them to a quick pace, they should at first be driven to the yoke, while young, without any or with a very light weight, and never heavily loaded until they have arrived at full strength and maturity.

A great fault with many people, is too much indifference to the *construction of the yoke.* Almost any shapeless piece of wood, with holes for the insertion of the bows, is made to answer; but to the ease of the draught, the adaptation of the yoke or bow to the neck of the bullock, and the position of the staple and ring in the yoke, are altogether material. For common use and for ploughing, I have found that yokes are generally too short. Cattle of the largest size require a yoke from four and a half to five feet in length. In short yokes they are apt to *haul*, as it is termed, that is, draw from each other, and to such a degree in some instances, as to cross their fore legs, and destroy their power and greatly impede their progress. I once owned a pair, made totally useless by this habit, and afterwards entirely corrected it by the application of a yoke of eighteen inches more length. A short yoke is necessary only in snow paths where cattle would otherwise *crowd* against each other.

The value of a yoke of oxen or a pair of horses for use in all work of a farm, admits of no comparison. So decided is the preference for the former, that I do not believe a single farmer can be found in this extensive agricultural region, who performs his labor by horses, without oxen; while there are *hundreds*, I had almost said *thousands*, who make no other use of horses in husbandry, than to furrow for planting, and plough among the corn for hoeing.

Our oxen, also, are kept with less expense than horses. In summer they are uniformly grazed in the pastures. In the cold and winter seasons, they are put into the barns, and fed upon stock hay, as it is called, that which grows in meadows, and upon the fodder of corn stalks, husks, &c., unless indeed they are more severely worked than usual, when hay of a better quality is given them; and in all cases as the spring advances, their keeping is improved, and with better hay some grain is added. I speak of the general practice of farmers. There are some who keep their oxen more generously, and others more hardly than I have mentioned. But with a clean and warm stable, the daily application of the currycomb or card, and coarse food, without severe labor, the best farmers will at all times exhibit teams of most vigorous and powerful cattle, and their best hay and their grain will be saved in their beef and pork, and in the produce of their dairies for the market.

Oxen yoked to a cart are greatly superier to horses attached to a wagon. The greater weight which may be carried by the former, and the facility with which it may be removed, by tipping up, are of most striking advantage in the ordinary business of a farm. It is said that a cord of green oak or hickory wood is not an unusual load for a yoke of oxen to carry upon a cart, while it would certainly require the power of three horses on a wagon. The estimate of relative expenses of keeping a pair of horses and of oxen, is in the ratio of three for the former and two of the latter and to this is to be added the value of the ox for beef when their strength fails for labor."

These facts correspond with my own experience. I have employed on my farm for the last four years, several yoke of oxen which I have broke and managed almost precisely as pointed out in this communication, and I am convinced that no farmer who sees them work, will doubt their superiority over horses, for most kinds of work on a farm. AGRICOLA.

Morgan county, Sept. 30th.

From the Farmer's Cabinet.

Cider.

Many persons, perhaps, are not aware of the efficacy of black mustard seed, (*Sinapis nigra,*) in preventing the acetic fermentation of cider. About a half pint of the seed put into a barrel of cider, will preserve it as sweet, from the usual time of making cider, in autumn, till the following May, as the day it was put in. The mustard is of very easy culture; a few seeds scattered in some rich vacant spot, will ensure a successive crop—although the plant is an annual. The succeeding crops will be perpetuated by the seed which falls to the ground in autumn. But in order to secure the cider from any unpleasant flavor, it is highly important that the vessels be kept free from must. An effectual method of cleaning cider barrels is, by putting into each one about a quart of unslacked lime, after which pour on about four or five gallons of boiling water. Cover the bung-hole with a loose covering, that some of the steam may escape, which will be generated in great quantities, to prevent the barrel from bursting. Shake it up several times, and then rinse it with clean water. It will add also greatly to the quality of the cider, by being separated entirely from all the sediments. This may be done by filtering it through a hair sieve when running from the press, and then to rack it off when it has stood a sufficient length of time to leave any that might remain settle to the bottom. A.

Chester county, Oct. 6, 1837.

THE GRAIN GROWING STATES.—Much is said of the magnitude and importance of the produce of the South, which is estimated at an hundred millions of dollars. Let us look a moment at the agricultural products—to say nothing of the manufactures—of the northern, western and middle states. A Buffalo paper says:—

"In our article a few days since, upon the subject of the flour, we stated the produce of last year, to be, in round numbers, 29 millions of barrels. Assuming 24 millions to be the average annual yield, and supposing that seven-eighths of this quantity are raised in the states not considered as planting States, in the whole or in part, and we have 21 million of bbls. which are to be accredited to the grain growing states. Put the price at six dollars—a fair average—and we have an amount of $136,000,000 as the value of a single article of Northern and Western produce."

The Pittsburgh Gazette notices a pear which weighed thirty-two ounces, and measured over fifteen inches in circumference.

COMMUNICATIONS.

Sheep.

Mr. Editor—A year or two ago, that farmer felt himself most fortunate, and treading most rapidly and securely the road to wealth, whose farm was most heavily stocked, in proportion to what it would bear, with sheep. I speak, of course, of the wool-growing region. The prices which wool then bore, placed the business of producing it, first in the scale of profit, and therefore perhaps it is matter of little surprise, that all whose means enabled it, rushed into it with indiscriminate eagerness. Another turn of the wheel has suddenly, for the time being at least, prostrated this lucrative branch of industry in the dust! In the grazing region, the dairy is now the all-absorbing object. Flocks collected with great care, and at uncommon expense, are in many instances, actually *crowded* off, by their former purchasers, at a moity of their original price.

This is committing a double folly. It is a refusal to profit by the lessons of experience. In the first place, it was sheer folly for those to embark exclusively in wool-growing, who did it at the *sacrifice* of any other *good* business in which they were then engaged, or who entered into it unprepared—perhaps unacquainted with it. The man who, for example, had a well regulated dairy establishment, and whose farm was stocked with valuable cows,—or he whose barns and other fixtures were constructed in reference to grazing and stall feeding,—or, the representative of a still more numerous class, the man whose preparations had been made for the mixed husbandry of the country;—and who suddenly abandoned it all—left pursuits with which he was *acquainted*—tore down and built anew—and upset the calculations of years, to embark in a new business, because that business incidentally held out a greater prospect of temporary profit, certainly acted with a want of discretion which deserves no milder epithet than 'folly.' And in the second place, having *once* engaged in wool-growing, having collected valuable flocks, made the requisite arrangements for taking care of them, and acquired a degree of skill in their management, it is *now* equally absurd and injudicious, because something else holds out greater present inducements, to desert it, at the sacrifice which under such circumstances is always inevitable. In the language of the trite old adage, "A rolling stone gathers no moss."

Every department of industry has its ups and downs. When any one branch, from being overdone, or from other causes, ceases to be profitable, the very abandonment of it which the discovery of this fact produces, brings it in due course of time (when the general desertion causes a scarcity of the article,) again to the summit. It is an inevitable consequence. The question simply is, then, "is it better by remaining stationary, to *take our turn* in being at the *top*, or to be, like the squirrel in his wheel, ever pursuing, and *ever below*, in these continual gyrations?" But wool-growing has not got, unless my observation has led me to form strangely erroneous conclusions, to go through the slow process of resuscitation from the depression consequent on over action. The business *has not been overdone*. I will advert to this more particularly hereafter.

What is there, now let me ask, (and I should be happy to see my opinions controverted, if they are wrong,) to discourage the steady and and systematic wool-grower? True, there is no present demand for his product, but there *must be* a demand for it, or we must learn to dispense with woolens—a thing not likely to occur soon, I think, in *our* climate! Experience has shown that we can manufacture in this country, in ordinary times, with profit. If this were not the case, we should hardly find the capital of a people so justly celebrated for thrift and economy, as our New England neighbors, invested in those noble manufacturing establishments, which give life and animation to so many of their cities. Experience has also shown that in supplying these establishments with the raw material, our wool-growers can compete with those of Germany, and still receive *vast* profits. How can the fact be otherwise, when our sheep-master can grow as much (and as *good*) wool to one acre of land as his German competitor,—and when that land can be purchased by the American, for a tithe of what it costs the German! The difference in the price of labor is hardly to be taken into account, so little, comparatively speaking, is required in the management of sheep. Yet the German ships his wool across the Atlantic—pays a heavy American duty—and after all these deductions, sells his wool at a profit, which leads him to set a five hundred per cent higher value on his sheep than the American. At the Royal flocks of Stolpen, Reunersdorf, Lohue, etc., and in private flocks of equal celebrity, the first grade of sheep are valued at from fifty to seventy-five dollars a head! The profits of the American grower must be *treble* that of the Gernan, yet the German is satisfied, or he would not send his wool here.

If the positions I have assumed are correct, it follows I think conclusively, that the business must be a good one, the moment that our pecuniary embarrassments pass by, and our manufactories are enabled to resume operations. He who thinks that day is *very* remote, knows little of the energies and resources of the American people. The business, moreover, must always continue good, until overdone by ourselves. That this has not yet occurred, I have already stated. It is shown by the fact that on the years in which our greatest clips have been taken, (1835, '36 and '37,) they did not meet our home demand, and large quantities were imported And the very folly I complained of in the beginning of this paper, —the abandonment of the business by the multitudes who have not steadiness and energy to withstand one hour of adversity, will put still farther off the time when it *can* be overdone. The full rise in the prices of wool may not immediately follow the revival of trade, as the amount which accumulates in the interim may overstock the market, and of consequence, place the game in the hands of the buyer. But this will be only temporary. *Wants* are also accumulating! The *wardrobe* has not escaped, in those curtailments of personal expenses, which the times have rendered *convenient*, if not necessary, at the hands of almost every one!

I will close my somewhat extended remarks, by saying to my brother wool growers, "be of good cheer." The time is soon coming when those who are so eager to desert a ship which they fancy to be sinking, will be back to beg re-admission. Of course they will expect to *pay* for the privilege!

South-Hill.

Cortlandville, Cortland co., Nov. 8th.

Experiment in freezing Wheat.

Mr. Tucker—I perceive in the Genesee Farmer of the present month, some hints on the subject of freezing wheat to sow in the spring. Three years ago the coming winter, I was told that, to take wheat and soak and freeze it, and sow it early would be better than to sow spring wheat. I put three bushels into warm water and let it stand one night, and then put the wheat in an open loft and spread it about two inches thick and left it till spring. I sowed it early in April; it came up and grew well, but not one head appeared. I am of opinion that it must be frozen after it is sprouted or it will not come to maturity the first year. I purpose trying a small quantity this winter, by mixing it with fine sand and letting it freeze, and keeping it frozen until I am about to sow it.

Apparatus for Steaming Roots.

Steaming roots for cattle and hogs is approved by all, but to get the best apparatus, and the most convenient way is not known to all. We have made a box two feet six inches square, and three feet long; one end open, the other end a tight bottom except three one-inch auger holes bored on or within the circle of a twenty gallon kettle, set in an arch on which the steam box stands. A little below the middle a wooden gripe is put on, through which a two inch roller passes through far enough to receive a bail, made sufficiently strong to swing or raise the box which holds about 13 bushels; and a sweep or lever above so as to hoist the same. Two hands will empty the whole contents into a vat by the side of the arch in five minutes. To keep the steam in, we use a cover lying flat on the top, with a stone on it; but generally cover the potatoes about two inches thick with provender which is an excellent cover.

If any part of this communication is thought worthy of your paper, I have no objections of your inserting it,

Truly yours, James M'Call.

Rushford, Oct. 26, 1837.

Remedy for the Scours.

Mr. Tucker—Not one of the least advantages to be derived from the Genesee Farmer, is the readiness with which recipes for the cure of the various diseases, to which farm stock are subject, can be obtained. And although they may not all prove good, I think the information derived from this source fully equal to that derived from the common run of country farriers. A short time since I had a horse taken sick with the scours, and before I noticed him, he had become weak, and the disease considerably advanced. I immediately referred to your useful paper, where I found slippery elm tea recommended as a cure for this disease. As this was easily obtained, and of well known qualities, I followed the directions therein given, and had the satisfaction to find that it completely checked the disease; and in a day or two he was able to resume his labors. As this remedy is extremely simple and readily obtained, I would recommend it to those who have horses effected with the disease.

Yours, &c., O. P. Q.

Large Radish.

Mr. Tucker—I copy the following certificate for you to publish, if you think the radish worth noticing. It grew in my garden from seed scattered last fall—came up late in May with some others, and grew in a patch of flourishing cucumbers. When quite young it had a healthy and beautiful appearance, and when the radishes around it run up to seed, this appeared as young as a radish in June, though uncommonly large. The radish exclusive of the top grew about two feet above ground.

M. S.

—

On the 12th of October, 1837, we dug out of Martin Strong's garden in Beaverdam township, Erie county, Pa. a radish, weighing 29 lbs. Length of the radish clear of the top, 3 feet 1¼ inch. Circumference near the top, 19 inches. Circumference near the centre, 20 inches. Circumference within 9½ inches of the bottom, 21 inches. Circumference within 6 inches of the bottom, 16 inches. Circumference within 3 inches of the bottom, 9 inches. The top of the above radish had no appearance of approaching to seed.

William Wightman,
Levi Grant.

Inquiry.

Mr. Tucker—I wish you, or some of the correspondents of the Farmer, would tell us how to work *hard pan* land, so as to get a crop on it in a *wet* season. M. S.

The Crops, &c.

Mr. Tucker—Crops of oats, barley and potatoes, have never been more abundant than they are the present season in this town; and I saw, a few days since, a beet raised on the farm of Oliver Jones, in South Onondaga, weighing thirteen pounds and a half, after the top was closely pruned.

Please inform me through your paper, if it is possible, by grafting, or any other means, to make an apple grow in such a manner that one half of it shall be sweet and the other sour. J. D. Corey.

Otisco, Oct. 24th, 1837.

☞ It has frequently been asserted that two scions, one sweet and the other sour, may be so inserted as to make the product half sweet and half sour; but we have seen nothing to induce a belief that an apple tree can, by any means, be made to produce apples of that description.

A Glasgow paper describes a cabbage raised this season, weighing fifty-three pounds, and measuring five feet eight inches in vertical circumference, and defies all the tailors in Glasgow to make so much cabbage in a month.

From the Boston Courier.

Plymouth County Cattle Show.

We subjoin, entire, the report of the Committee on "Improvements," written, we presume, by the venerable and reverend President of the Plymouth Agricultural Society:—

The circumstances in which we now stand here, are so widely different from those under which our last annual report was made, as to merit distinct remark. We then came to this house amid the peltings of so severe a north-east storm, that comparatively few of our farmers had zeal enough in the good cause to induce them to face it. The house was thinly peopled. We resembled a worshipping assembly under a dull preacher more than a collection on an interesting anniversary. On the countenances of the few farmers who did appear, there was something more of gloom than the north-east wind alone would have occasioned. They came in the contemplation of much unsuccessful labor, of nearly empty granaries. There had been almost an entire failure of some of our principal crops. We cannot speak of the past season as very fruitful; yet it has been enough better than the preceding to cheer us with the hope that the sun, in future, will visit us in his strength; that seasons of vegetation will return, of sufficient length to mature the various products of the earth. We are now animated with many cheerful countenances, and encouraged in our course by a respectable assemblage of our female friends, who are not always pleased with the dust that occasionally adheres to the farmer's hands and garments, but think well of the firmness of his habits, and the soundness of his principles. We are presented on this occasion with more than ordinary motives to study the theory and improve in the practice of agriculture. The posture of public affairs has darkly eclipsed, if not wholly destroyed, the hopes and prospects of many other pursuits. The pockets of at least many of us are making an approach to emptiness, near enough to show us the importance of seeking sustenance through the kindness of our mother earth. Should the singular position of our country lead to extended improvements in the soil, should it induce a new set of laborers to take the field, should more than the poor of the land become permanently engaged in the business of husbandry; then may our sons look back to the evils of this period, as overruled by a gracious providence, to the production of some good. The competitors for premiums, in the department of this Committee, are this year few in number, but they have manifested a laudable spirit of emulation, and extended their labors beyond the common measure of other years.

Benjamin Hobart, Esq., of Abington, the only claimant for the best cultivated farm, exhibited numerous buildings, all of which are in good condition; and those that were constructed for the particular use of the farm, well arranged in location and internal division for convenience and economy. The mansion, a venerable edifice, is environed with fruit and ornamental trees, and some very handsome specimens of horticulture and floriculture. In the rear of the house there is a long serpentine walk, overshadowed with numerous forest trees, affording delightful summer resort for rest or pastime. The garden and walk forcibly remind a spectator of descriptions he has read of English combinations of artificial with natural scenery. Improvements of this sort have no essential connection with agriculture, but give lustre to more useful improvements, and deserve much commendation, wherever knowledge, ability and taste for them are united.

Mr. Hobart's farm, originally very rough and rocky, is reduced to a state of good cultivation. The fields are judiciously and tastefully laid out. The statement which accompanies this report will give more particular information of the operations on the farm and the estimates of expen es and income: its several other branches of business have been carried on in connection with the farm; it may be that blended interests have occasioned some mistake in Mr. Hobart's calculations; if not, there is a clear profit from his farm, beyond what the most ardent friends of agriculture had supposed is yet obtained in this county. Whether or not the statement be mathematically true, Mr. Hobart has set an example which ought to be imitated; his success gives foundation of hope it will be. His neighbors must perceive the advantages and beauty of smooth productive fields. They will not, we hope, long be contented to bother their tools and bruise their feet against rocks, which strong faith and a portion of sulphur would quickly remove. There has been too much dread of rock bound soils, and the means employed to avoid them have, in many instances, been very much like "straining at gnats and swallowing camels." In this country there certainly should be no dread of rocks, nor any waste of them; here there is scarcity rather than redundancy; let the farms be cleared by splitting and piling such as are not yet wanted; the time may not be far distant when they will bring more for every square foot than live oak timber now does.

The award of the first premium, $30, to Mr. Hobart, and the addition of two volumes of the New-England Farmer, is recommended.

To Mr. Philip Brewster, of Hanson, the premium of $14 is offered, for the renovation of swampy land. He had reclaimed, since 1833, from a very rough and almost useless state, to good English meadow, three acres and twenty-five rods. One hundred and thirty-one rods more have been subdued and seeded the present year.

To Col. Abram Washburn, 2d, of Bridgewater, the first premium for stone wall, $30, and one volume Complete Farmer. He has laid two hundred and thirteen rods of good wall, and managed his farm in a satisfactory manner in other respects.

The following persons are considered entitled to premiums for their skill and praiseworthy exertions in composing manure. Capt. Salmon Howard, of West-Bridgewater, $30, and one volume New-England Farmer; he has made eleven hundred and fifty-five loads.

Maj. Horace Collamore, of Pembroke, $25, and one volume Complete Farmer; he has made seven hundred and eighty-five loads.

Paul Hathaway, Esq., Middleboro', $20, and one volume New-England Farmer; he has made seven hundred and one loads.

Mr. Philip Brewster, of Hanson, $15, and one volume New-England Farmer; he has made six hundred and five loads.

These gentlemen have done well; they have honored themselves in their abounding useful labors. We are sorry the fifth premium offered for so important an object is not claimed. Our granaries will never be well filled, without our fields are often replenished with the food of plants.

There is not in any year quite so much accomplished as ardent men desire, but the progress we have made in practical agriculture enables us to give a fair account of the use made of the bounty granted us by the Commonwealth. The government have now made another provision of some expense, for our encouragement, in the appointment of an agricultural survey. The leading object of this measure is understood to be the reduction of our art to a system. And the best system known to those practical men who are always able to show a greater amount of income than expense. That we may contribute in our measure to the accomplishment of this very important object, permit me, sir, here to say to the farmers in this county, when the commissioner shall come among you, show him what you are doing, and the reasons on which you proceed. Be not ambitious to show the extent of your knowledge in common, by received or fanciful theories. Dresses kept exclusively for special occasions are always embarrassing things, and often lead us into extremely mortifying blunders. The farmer's knowledge, like the Christian's faith, should be in daily exercise, and more impressively manifested in works than words. Make no attempt to add something of attractive imagery to the system pursued for the occasion; let the habitual and whole course be frankly disclosed, and if there be faults, the commission r will charge himself with the duty of showing the better way.

MORRILL ALLEN, Chairman.

Cooking Potatoes.

Set them on the fire in *cold water;* when boiled pour off the water completely, add a little salt, and dry them well on the fire. Another method:—Choose your potatoes of equal size, and put them into a saucepan, or pot without a lid, with no more water than is sufficient to cover them; more would only spoil them, as the potatoes themselves, on being boiled, yield a considerable portion of water. By being boiled in a vessel without a lid, they do not crack, and all waste is prevented. After the water is come nearly to boil, pour it off, and replace the hot by cold water, into which throw a good portion of salt. The cold water sends the heat from the surface to the heart of the potatoe, and makes it mealy.—*South. Agriculturist.*

Illinois Prairie.

Mr. Russell—The most striking and peculiar feature of Illinois, and one that distinguishes it from all other states east of the Mississippi, consists in its prairies. Nine tenths of this state is composed of these plains, which are entirely destitute of trees, or even shrubs. Farmers who emigrate from older regions, where the surface of the earth was covered with a thick and heavy forest, regard our large prairies as a serious drawback upon the value of the state. This arises merely from a habit of supposing what they have been all their lives accustomed to, must, of course, be best. The destitution of timber on our prairies, I regard as an immense advantage. Years of hard labor are required to level the sturdy forest; and then, for more than the fourth of a century, the stumps are seriously in the way.

All this labor is spared to those who settle on a prairie. With less labor and expense than it takes to clear heavily timbered land, the farmer can haul his rails and fuel a distance of ten miles. Not a few of our citizens in the older counties have their farms on the prairie, and bring all their fencing timber and fire-wood several miles. This they find far preferable to settling in the woods. But the inconvenience arising from want of timber, or living at a great distance, can be remedied. In a very few years, the prairie farmer can raise up a young forest, from which he can fence his fields and obtain fuel. The black locust is a tree of rapid growth, and is one of the most durable kinds of timber found in our American forests, and is very easily raised. Early in the spring, take the seeds and pour boiling water upon them, and leave them to soak twenty-four hours, then plant them about an inch deep. In eight years they will be more than a foot in diameter, if the soil be good and proper attention is paid. A few acres of these trees will be amply sufficient to keep up fences on the largest farm. When one is cut down, others immediately spring up from the roots and attain to a large size much sooner than from the seed.

Trees can be taken from a nursery of almost any size, and transplanted without risk. Much attention has been paid to this subject in Morgan county for the last few years. Bushels of seed were sown last spring, and vast numbers of trees planted out. Some set trees close to their fences all around every field. This is an excellent plan, and should be followed. They take up no room, and do injury to no crop. By the time that a common rail fence will decay, these trees will be large enough to supply its place with one that will last from forty to sixty years.

On some parts of very large prairies, I have seen very good fences made by cutting the sods or turf which is turned up by breaking the prairie, and laying it up to the height of about five feet, with a thickness of three. This fence answers very well for a few years, especially when a small ditch is made on the outside. By the time this decays, the enterprising farmer can have locust timber of his own raising, large enough to fence his field.

Every farmer has more land than he actually cultivates. To what purpose can he apply a few acres that will be of greater benefit than by planting them with locusts? The labor is trifling, and it requires to be done but once. If he had timber a mile distant, it would be good economy to pursue this course. It is surprising that any one should neglect it, who lives on a prairie. A short time ago, I read in an eastern paper of some farmers in Massachusetts, who had cultivated the locust in the manner that I recommend. The quantity of timber to the acre, and the price at which they sold it, proved, beyond a doubt, that no other purpose to which they could have applied their land, would have yielded half so large profits. Timber here is still higher in price.

Every year, our farmers in this part of the state

are more and more convinced, that raising timber is a source of wealth, and great numbers have already commenced planting out the locust. If such a plan would become universal, our widest prairies in a few years would be occupied, to their very centers, by flourishing farms, instead of lying in a state of nature, unsold and unoccupied. AGRICOLA.

Morgan county, Oct. 14.

From the Cultivator.

Directions for making Butter.

MR. J. BUEL—Dear Sir—According to promise, I send you the following directions for making butter. They are strictly in accordance with the method practiced by my own family, and in which we have been successful in suiting the market for a great number of years. You are at liberty to use them as you may think proper.

I am, dear sir, respectfully yours,
JAS. SMEALLE.

The milk of the cow is a nourishing and grateful *food* to man. Among the various uses to which it is put for this important purpose, none are more deserving of consideration than that well-known delicious substance called butter. Butter is an almost indispensable necessary of life; it is used by all classes of people; it forms an essential part of nearly every repast, and if the quality is good there are few indeed who do not highly relish it. But it will be readily admitted, that the qualities of butter differ extremely; some are very fine, while others are unfit for the purposes of the table. Yet both the good and bad are produced from milk possessing exactly the same properties. Milk is composed of a peculiar oil, (or butter,) curd and whey, which can be easily separated. The same proportion of these ingredients may not exist in the milk of every cow, but the combination is the same in all. The following position will therefore hold good, viz:—If good butter may be made from milk, and all milk possesses the same properties, then all milk (of healthy cows is intended) is susceptible of producing good butter. It is admitted that the food of which the cows partake, for the time being, will more or less affect the quality of the butter. Winter and summer make, for example, are very different, but both may be good of their kind,—difference in quality arising from this cause, therefore, will not affect the principle laid down. It is evident that it is not to the milk, but to the management of it, that we must look for the cause of that diversity of quality existing in butter.

When milk stands to rest for some time, cream collects upon its surface, which it will continue to do if *kept in a proper state*, until very little is left in the milk; but under certain circumstances it becomes sour and coagulated, after which the cream ceases to gather. It is generally admitted that the greatest quantity of butter is obtained by churning the whole of the milk. If this course is to be pursued, churning ought to be done as soon as possible after the milk has thickened. But the general practice is to churn the cream only, in which case means must be used to keep the milk sweet, in order that the greatest quantity possible of cream may be obtained. The milking pails, milk pans, &c. must be regularly cleansed and scalded before being used. Let this extend to the whole apparatus of the dairy.

Zink or tin milk pans should be used, they being most cooling and easily kept sweet. The milk room must be well ventilated, and as cool as possible. In very warm weather it will be of advantage to place the milk pans on the floor.

Cream is composed of the same ingredients with milk, but in different proportions. It must be skimmed off as soon as it has ceased collecting, and churned as soon as possible after it has thickened. If it is permitted to stand for a length of time before churning, the component parts will separate spontaneously, and in churning numerous particles of the curd will become blended with the butter, and can never afterwards be separated. The butter will appear spotted, it will have a sour taste, and will very soon become rancid. Cream is extremely liable to become tainted by any offensive smell with which it may come in cantact. Butter will frequently have a flavor of cheese, onions, &c., merely from such articles having been placed near the milk during the time of creaming, hence the necessity of keeping the milk room sweet and clean. Care must be taken not to make the churning too warm; every one conversant with the business, knows the inferiority of what is termed scalded butter; it is much more safe to churn too cold than too hot. Hot water should never be used for the purpose of warming the churning. Its coming suddenly in contact with portions of the cream causes it to curdle, and produces those evils already mentioned, when separation of the parts takes place. When the churning requires warming, the better way is to fill a tin pail or milk pan with the milk or cream, set it in hot water, stirring it while warming; this can be repeated till the whole is brought to the proper temperature.

We have said that the several ingredients of which milk is composed can be easily separated. Although this be the case, it requires time and labor to obtain either in a perfectly pure state. Butter, as taken from the churn, will contain a considerable portion of the other matters, and on the proper separation of these the quality of the butter in a great measure depends. If the business has been rightly conducted, they will be in a liquid state, viz: of sour milk, and may be almost entirely removed. Many commence the operation of working the butter by washing it in cold water; the practice, although much followed, is not a good one; it injures the color, and detracts, in a consideoable degree, from that delicious nutty sweetness, which fine butter possesses. This may appear novel to some, but it is not new to many of our best butter makers. Let any one try the experiment, by treating parts of the same churning, the one by washing, and the other according to the direction here given; it is easily done, and will remove every doubt.

Raise the vessel containing the new made butter a little on one side, to allow the milk to run off; commence working it with the ladle by bruising it down, turning it over, &c. pouring off the milk from time to time as it collects. Continue until the milk ceases coming off; add the proper quantity of fine salt, mixing it well with the butter, and set it in a cool place until the following day, when it must be again thoroughly worked. The salt will have dissolved in the butter, and part of the pickle will work out, taking with it nearly all that remains of the foreign matters. Continue working until the pickle comes off clear, and the butter a tough solid mass. The excellent preservation of the butter depends much on this part of the business being properly performed, and to its mismanagement may justly be attributed a large proportion of that of inferior quality. As part of the salt will have been lost by working, the proper quantity must now be added, with about half a teaspoonful of salt-petre, well pulverized, to ten pounds of butter, mixing the whole properly. Here a caution may be proper, viz: having obtained good butter, don't spoil it with salt, as is too often done. A medium is best, not so little as to make it insipid, nor so much as to destroy the flavor, and make the taste disagreeable.

In packing butter, the vessel to receive it, if made of wood, should be seasoned for at least a week previous to using it, by filling it frequently with buttermilk; it must likewise be properly cleansed and scalded. The butter should be put down as soon as the working is finished, while it is yet soft and pliable, pressing it together in such a manner as to leave no vacancies between the different churnings. If the butter is intended to be kept for a length of time, the following treatment will answer the double purpose of excluding the air, and supplying a proper pickle, which are both necessary. Cover the butter neatly with a linen or cotton cloth, over which lay a quantity of fine salt, add from half a pint to a pint of pure water—repeat either or both when necessary. Set it in a cool dry cellar. Follow the above directions and the butter will keep well, and be of excellent quality.

[NOTE.—We have seen and tasted both the cheese and butter of MR. SMEALLE, made according to the directions, we understand, given above and in a former number of the Cultivator, and we do not hesitate to pronounce both of the first quality.—*Cond. Cult.*]

At Columbus, Ohio, Oct. 27th, the ground was covered with snow two inches deep.

From the Maine Farmer.

Rules for selecting Sheep and Beasts.

MR. HOLMES—The exhibition of the various kinds of stock at the late Cattle Show at Winthrop, is the surest evidence of the increasing interest in our farmers to improve their qualities; and much praise is due to the Trustees of the Kennebec Co. Ag. Society, for premiums offered by them, as these premiums had their share in producing great exertions to promote the views of the Society.

Six lots were entered for the premiums offered by the Society, "on the best lot of lambs, not less than four in number, from *any* cross, forming a breed, which shall unite in the greatest degree those qualities which shall produce wool and *mutton* in the most prolific manner." The first premium was awarded to Mr. J. W. Hains, "for four lambs of the *same breed* as those exhibited by Mr. Vaughan," and the second premium to myself, for "four lambs from ewes of my mixed breed, sired by a *full blood* South Down buck."

These different experiments, if repeated and varied, must result in securing to our country the most profitable breed of sheep, and well suited to domestic use. Breeds that will unite in the best shape, good constitutions, good breeders, and a superior disposition to fatten on the least food.

Notwithstanding the Royal patronage of George the Third, who imported a flock of Merinos from Spain, there are very few Merino flocks in England. The fine wool, for the manufacture of the finest cloth, is obtained through importations. The improvement in the breeds in England, has been made by the crossing of the various kinds already in the country, and in the judgment used in selecting the kinds for these crosses. Mr. Bakewell, who has deservedly the reputation of having arrived at the greatest perfection, by selecting the proper animals to cross with the Leicester breed of sheep, has given to the heavy fleeces of combing wool, mutton of a superior quality. Out of 16 different breeds, classed according to quality, the Dishley breed stands No. 1, in the class of combing wool, and the South Down is No. 1, in the class of shearing wool. The Merino is the last on the list.*

I shall now proceed to the first object I had in view in making this communication. It was to furnish the Rules, used by Mr. Bakewell, and the most eminent breeders, which enabled them to make their selections of the most profitable animals. The extracts I offer are taken from *Young's Annals*, and may remove the difficulty of deciding on the quality of mutton in sheep, without the use of the "*knife*" or the "cook," as expressed by the Committee on Sheep, in the report on the various lots of lambs offered for the premiums.

These extracts will clearly show that Arthur Young, Bakewell, and other eminent breeders, did not use the sense of *taste*, but trusted to the use of the two senses of *seeing* and *feeling*, and more particularly the *latter*.

Though this article has a reference to sheep, yet as the same general principles apply equally to cattle and sheep, those points described as essential in beasts, we give here.

Mr. A. Young, in a tour through some of the agricultural counties, visited Mr. Bakewell and explains,

1. "The general principles, which guided Mr. Bakewell in breeding a beast or *sheep* for the butcher, and at the same time explains his own stock, which is in the highest perfection, when examined with an eye to these principles.

"In all his exertions, his aim was to obtain that breed, which with a given amount of food, will give the most profitable meat, that in which the proportion of the useful meat to the quantity of offal is the greatest.

2. "Points of the beast. On this plan the points are those where the valuable joints lie, the rump, the hip, the back, the ribs, and after these the flank; but the belly, shoulder, neck, legs and head should be light, for if a beast has a disposition to fatten, and be heavy in these, it will be found a deduction

* The maturity of the different breeds, and age for the butcher, ought to be noticed. The Dishley, South Down and Teeswater wethers are fit for the butcher in 2 years, 3 of the 16 at 2½ years;—of the others, 2 at 3½ years, and 6 in 4½ years. The Merino in the list is not graded for mutton.

from the more valuable points. A beast's back should be square, flat, and straight, or if there is any rising it should be from a disposition to fatten, and *swell about the rump and hip bones*, and the belly should be quite straight, for if it swells it shows weight in a bad point. He prefers to have the carcass well made, and showing a disposition to fatten in the valuable points. So far on *Seeing*.

3. "Feeling. Mr. Bakewell, to judge whether a beast has the right disposition to fatten, examines by *feeling*. His friend, Mr. Culley, who has had an infinite number of beasts go through his hands, agrees entirely with Mr. Bakewell in this circumstance, and when with him in Norfolk and Suffolk, was surprised to find *lean* bullocks and *sheep* were always bought there by the *eye* only. So *absolutely necessary is the hand in choosing either*, that they both agreed that if they must trust to the *eye in the light*, or to the *hand in the dark*, they would not hesitate a moment in preferring the latter. The form of the bone in *sheep* is quite hidden; it is the hand alone that can tell whether the back is flat and broad, and free from *ridge* in the back-bone; or can examine correctly, if the other points are as they should be. *The disposition to fatten is discovered only by feeling.*

"Speaking of sheep particularly, the points to examine are the same as in the ox. Flatness, breadth of back, a spreading *barrel* carcass, with flat belly, and by no means curved and hanging. The essential is the carcass, and a disposition to fatten in the carcass, and perhaps to have the least tallow on the sides."

In a comparison between the Norfolk breed and South Down, it is the opinion of John Vise, butcher to Eton College, that "with respect to profit to the feeder, if they are fed entirely with grass, and upon good land, my opinion is decided in favor of the South Down; or if they eat turneps in winter, and after that are kept two or three months on grass, in the spring, it is the same. But if they are kept fat against winter, and are to be completed on turneps, the Norfolk is more profitable than the South Down." On this Arthur Young remarks, that the profit here spoken of must be to the grazier and butcher, but not to the breeder, consequently is not so good to the public in general.

It is time to close, though much valuable matter remains to be noticed. I hope what extracts are given, will be found useful.

CHARLES VAUGHAN.

Crosses.

We have heard the fear expressed by experienced breeders, that the individuals of the present stock of Short Horn Durham Cattle, are too nearly allied to propagate *all* their peculiar and distinctive qualities to their progeny. The remark was meant, and is to be taken, as a general one, applying as well to the stock elsewhere in America, as to that in Kentucky. The foundation of this fear seems to rest in the fact, that the race of cattle now most prized, the *Improved* Durham, being in some sense a mongrel race of very recent origin, its descendants are so closely connected, that they are in danger of degeneracy. It is feared, that the vigor of this race cannot be maintained, because we have not all those other races, by the union or crossing of which, the excellent qualities identifying and establishing it, were originally produced. The superiority of this race is owing, not to its possession merely of some peculiar quality in a higher degree than others, but that it unites more points of excellence. There are some breeds which yield more milk, and some which give more flesh; but this gives *almost* as much milk, *almost* as much flesh, —presents more flesh where it is most valuable and less where it is least—fattens more kindly and rapidly—arrives at much earlier maturity, and is of far more docile disposition; and these advantages, render it infinitely the best breed from which to stock our farms. The importance, therefore, of maintaining the purity and vigor of a race, combining so many and so great excellencies, is manifest; and, if the foundation of the fear to which we have alluded be well laid, our breeders should promptly avail themselves of the adequate remedy against the degeneracy implied. Whether that remedy, if need be for its employment, shall be found in the indigenous breeds of the country, or only by recurrence to the original breeds of England, whence this derived its excellencies and origin, are questions which they must investigate and decide upon for themselves. We do not pretend to offer any opinion on any of the questions involved, nor do we even own that we are impressed with the fears which have brought them up. The subject, however, is worthy of examination by intelligent breeders, and it is but respectful to the opinions of those entertaining these fears, to call attention to it. We invite, therefore, the expression through our columns of opinions held by breeders on the subject, trusting that whatever conclusions are arrived at, may be those best calculated to promote this great interest. In the calcareous lands of Kentucky, it is not likely that the business of rearing cattle will ever be superseded by more profitable pursuits. That description of soil is of all others best adapted to the growth of the grasses, while no country is more productive of corn. And should it be necessary to resort to the root culture as an additional aid, we can pursue it *ad infinitum*. There is no danger, therefore, that we shall be outstripped by any other state in the great race of improving the breeds and rearing the most and the best cattle. We have great and ample means and abundant resources; and we have only to subject them to intelligent employment, to win a name for rearing fine cattle, as we already have for rearing horses, as widely acknowledged as the fame of the Arabian steed.—*Franklin Farmer.*

PRETTY WIVES.—A gentleman speaking of those who marry pretty wives, said, that in six months a beautiful woman became ugly to her husband; and what was worse, she continued beautiful to others. Selden says something to the same effect in his Table Talk. "He," observes Selden, "that hath a handsoms wife, by other men is thought happy; tis a pleasure to look upon her, and be in company with her; but the husband is cloyed with her. We are never content with what we have."

Buckwheat Cakes.—Put a large spoonful of yeast and a little salt into a quart of buckwheat meal, make it into a batter with cold water; let it rise well and bake it on a griddle; it turns sour very quickly if it be allowed to stand any time after it has risen.

Seeds for 1838.

JUST arrived at the Rochester Seed Store, a large importation of English Field and Garden Seeds, of the growth of 1837; shipped from London this fall expressly to our order, and comprising a full assortment of the choicest kinds, such as

Cabbage,	Ruta Baga,	Rye Grass,
Cauliflower,	Mangel Wurtzel,	White Dutch
Brocoli,	Sugar Beet,	Clover,
Radish,	Lucern,	&c., &c.
Turnep,	Trefoil,	

These Seeds are from one of the best establishments in Europe, and the perfect satisfaction which they have hitherto given, is sufficient guarantee of their character.

Dealers and others supplied at wholesale on very favorable terms. REYNOLDS & BATEHAM.

nov18 tf

Ram Sheep of the pure Kent Breed.

MR. RICHARD GOORD, of Twade near Sittingbourne, Kent, England, having devoted a long life in an endeavor to form a breed of Kent Sheep, (as Bakewell and Ellman have done with the Leicesters and Southdowns,) that should, with great size, combine all the desirable qualities, such as symmetry, hardihood of constitution, propensity to fatten, wool in quantity and of fine quality, &c., so far succeeded as for many years to carry off the prizes at the annual stock shows in Kent, when about two years ago, it being considered that he had by bringing this breed to such perfection, conferred so great a benefit upon the community at large, a subscription was entered upon by the nobility, gentry, and others, and a most splendid vessel of embossed silver, (that I believe would contain from nine to ten gallons,) mounted on feet, with a handsome and most flattering inscription, was presented to him at a public dinner given for that purpose.

The carcass of this stock, at twenty months old, after being skinned and cleaned, commonly weighs from sixteen to eighteen stones, of 8lbs. to the stone, or 144lbs. When I left Sittingbourne last May, I selected a fine RAM, of the above breed, perhaps the largest sheep with such a combination of good qualities, that ever crossed the Atlantic, and have it now on my farm (lately belonging to Mr. Jacob Pound) at Pittsford, where those desirous are welcome to see him, and may if they please send a few ewes this season at one dollar per head.

S. W. SHOTTER.

Pittsford, Monroe County, N. Y.

Oct. 3, 1837. 13t*

Farmer's School Books.

THE Farmer's School Book, edited by J. O. Taylor, published at the Albany School Book Depository. First Lessons on Political Economy, for the use of Schools, by John McVicker, published at the Albany School Book Depository.

The above valuable books are for sale at the Albany prices by HOYT & PORTER.

Rochester, Nov. 11, 1837.–f3t

Fruit Trees For Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.

apr 15–tf

N. B. CASH will be paid for a few thousand two years old APPLE TREES

Monroe Horticultural Garden & Nurseries, Greece, Monroe Co., N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired delivered on the canal one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1837. ASA ROWE.

Chinese Mulberry--Morus Multicaulis.

WARRANTED genuine, and the most approved varieties for feeding Silk Worms; among which are the Manilla and Canton Multicaulis, with roots of one, two and three years old.

Also, CUTTINGS, and the Canton Seed bearing tree.—Multicaulis, Asiatic, Chinese, Smyrna and Brussa SEEDLING TREES, may be had at the usual prices, and selected from the Agricultural and extensive Mulberry Nurseries in Northampton, Mass. and vicinity—securely packed and delivered at the Nursery, or forwarded to Boston, Hartford, New-Haven, New-York, Albany, Rochester, Buffalo, Cleveland, Charleston, Savannah, Mobile, St. Louis, or any other place within the United States, conformable to order. Some of the above are considered as peculiarly adapted to sustain our hard winters.

Autumn being the best season for removing the trees, letters addressed to the subscriber, post paid, will be promptly attended to, with instructions for management.

D. STEBBINS, *Sec'y Ag. Soc'y.*

Northampton, Sept. 1, 1837.

N. B. Orders for the above (if made in season to beforwarded by the Canal,) will be received by GEORGE W HARWOOD, No. 20, Buffalo-street, Rochester.

sept 30–f3t m2t

Chinese Mulberry Trees. &c.

THE subscribers will supply, at reduced rates, the following trees:

200,000 Chinese Morus Multicaulis, of various sizes, at the lowest prices.

20,000 New Chinese Morus Expansa, a seedling variety from the Morus Multicaulis, with very large succulent leaves, remarkable for the quantity of nutritious matter. They are engrafted on the White Mulberry, and are hardy enough for the most northern climates, and possess all the advantages of the Morus Multicaulis. These are six feet and upward in height.

3,000 New Hybrid Morus Multicaulis with large leaves and close joints, and 6 to 7 feet in height and very hardy.

100,000 Florence Mulberry, with entire leaves, in which point they differ from the common White Mulberry. These, are imported direct from the best silk districts of France, and are 1 1-2 to 2 1-2 feet in height, and will be sold at very low rates.

50,000 Italian White Mulberry, at very low prices.

Also, 100 lbs. White Mulberry seed.

1000 lbs. yellow and white Sugar Beet seed.

20,000 Brussa Mulberry, 5 to 7 feet high, and 10,000 of less size.

25,000 Chinese Mulberry, so called.

Priced catalogues of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias and Garden, Agricultural and Flower seeds sent gratis to every applicant.

Orders sent us per mail will receive immediate attention, and forwarded as ordered. Linnæan Garden, Flushing.

WM. PRINCE & SON.

N. B. Companies or individuals desirous to contract for large numbers of Trees, will be dealt with on very liberal terms. sep23

CHEESE—2000 lbs. received and for sale by [aug 3] P. B. L. SMITH & CO.

Conversation.

There is nothing more grating to the man of intelligence, than the foolish and trifling conversation which prevails in the various intercourse of social life, even among the middling & higher circles of society, and in convivial associations. The ribaldry and vulgarity, the folly and nonsense, with the many degrading methods of "killing time," and the laughter of fools which too frequently distinguish such associations, are a disgrace to our civilized condition, and to our moral and intellectual nature. Without supposing that it will ever be expedient to lay aside cheerfulness and rational mirth, the lively smile or even the loud laugh, it is surely conceivable that a more rational and improving turn might be given to general conversation, than what is frequently exemplified in our social intercourses. And what can we suppose better calculated to accomplish this end, than the occasional introduction of topics connected with science and general knowledge, when all, or the greater part, are qualified to take a share in the general conversation? It would tend to stimulate the mental faculties, to suggest useful hints, to diffuse general information, to improve science and art, to excite the ignorant to increase in knowledge, to present interesting objects of contemplation, to enliven the spirits, and thus to afford a source of rational enjoyment. It would also tend to prevent those shameful excesses, noisy tumults, and scenes of *intemperance*, which so frequently terminate our festive entertainments. For want of qualifications for such conversation, cards, dice, childish questions and amusements, gossiping chit-chat, and tales of scandal are generally resorted to, in order to consume the hours allotted to social enjoyment. And how melancholy the reflection, that rational beings capable of investigating the laws and phenomena of the universe, and prosecuting the most exalted range of thought, and who are destined to exist in other worlds, throughout an endless duration—should be impelled to resort to such degrading expedients, to while away the social hours!

Domestic enjoyment may likewise be heightened and improved by the studies to which we have adverted. For want of qualifications for rational conversation, a spirit of listlessness and indifference frequently insinuates itself into the intercourses of families, and between married individuals, which sometimes degenerates into fretfulness and impatience, and even into jars, contentions, and violent altercations; in which case there can never exist any high degree of affection or domestic enjoyment. It is surely not unreasonable to suppose, that were the minds of persons in the married state possessed of a certain portion of knowledge, and endowed with a relish for rational investigations—not only would such disagreeable effects be prevented, but a variety of positive enjoyments would be introduced. Substantial knowledge, which leads to the proper exercise of the mental powers, has a tendency to meliorate the temper, and to prevent those ebullitions of passion, which are the results of vulgarity and ignorance. By invigorating the mind, it prevents it from sinking into peevishness and inanity. It affords subjects for interesting conversation, and augments affection by the reciprocal interchanges of sentiment and feeling, and the mutual communication of instruction and entertainment. And in cases where malignant passions are ready to burst forth, rational arguments will have a more powerful influence in arresting their progress, in cultivated minds, than in those individuals in whose constitution animal feeling predominates, and reason has lost its ascendancy. As an enlightened mind is generally the seat of noble and liberal sentiments—in those cases where the parties belong to different religious sectaries, there is more probability of harmony and mutual forbearance being displayed, when persons take an enlarged view of the scenes of the creation, and the revelations of the Creator, than can be expected in the case of those whose faculties are immersed in the mists of superstition and ignorance.

How delightful an enjoyment is it, after the bustle of business and the labors of the day are over,—when a married couple can set down at each corner of the fire, and with mutual relish and interest, read a volume of history or of popular philosopy, and talk of the moral government of the world, the arrangements of Providence, and the wonders of the universe! Such interesting conversations and exercises beget a mutual esteem, enliven the affections, and produce a friendship, lasting as our existence, and which no untoward incidents can ever effectually impair.—*Dick on Society.*

A Synopsis of the Modern Improvements in Agriculture.

We shall conclude with a few brief notices of some of the most prominent benefits and improvements which modern science has contributed to the art of agriculture. The husbandman of antiquity, as well as those of the middle ages, were destitute of many advantages enjoyed by the modern cultivator. Neither the practical nor the theoretical agriculturists of those periods had any correct knowledge of geology, mineralogy, chemistry, botany, vegeteble physiology, or natural philosophy; but these sciences have given the modern husbandman the command of important agents, elements and principles, of which the ancients had no idea. The precepts of their writers were conformable to their experience; but the *rationale* of the practices they prescribed they could not, and rarely attempted to explain. Nature's most simple modes of operation were to them inexplicable, and their ignorance of causes often led to erroneous calculations with regard to effects. We are indebted to modern science for the following among other improvements, viz: 1. A correct knowledge of the nature and properties of manures, mineral, animal and vegetable; the best modes of applying them, and the particular crops for which particular sorts of manures are best suited. 2. The method of using all manures of animal and vegetable origin while fresh, before the sun, air, and rain, or other moisture, has robbed them of their most valuable properties. It was formerly the practice to place barn-yard manure in layers or masses for the purpose of rotting, and turn it over frequently with the plough or spade, till the whole had become a mere *caput mortuum*, destitute of almost all its original fertilizing substances, and deteriorated in quality almost as much as it was reduced in quantity. 3. The knowledge and means of chemically analyzing soils, by which we can ascertain their constituent parts, and thus learn what substances are wanted to increase their fertility. 4. The introduction of the root husbandry, or the raising of potatoes, turneps, mangel wurtzel, &c. extensively, by field husbandry, for feeding cattle, by which a given quantity of land may be made to produce much more nutritive matter than if it were occupied by grain or grass crops, and the health, as well as the thriving of the animals in the winter season greatly promoted. 5. Laying down lands to grass either for pasture or mowing, with a greater variety of grasses, and with kinds adapted to a greater variety of soils; such as orchard-grass, (*Dactylis glomerata,*) for dry land, foul meadow grass, (*Agrostis stricta,*) for very wet land, herds grass, or timothy, (*Pleum pratense,*) for stiff clayey soils, &c. 6. The substitution of fallow crops, (or such crops as require cultivation and stirring of the ground while the plants are growing,) in the place of naked fallows, in which the land is allowed to remain without yielding any profitable product, in order to renew its fertility. Fields may be so foul with weeds as to require a fallow, but not what is too often understood by that term in this country. "In England, when a farmer is compelled to fallow a field, he lets the weeds grow into blossom and then turns them down; in America, a fallow means a field where the produce is a crop of weeds running to seed, instead of a crop of grain. 7. The art of breeding the best animals and the best vegetables, by a judicious selection of individuals to propagate from. These improvements, with others too numerous to be here specified, have rendered the agriculture of the present period very different from that of the middle ages, when it had sunk far below the degree of perfection which it had reached among the Romans.—*Encyclopædia Americana.*

Education in America.

It is the universal attention paid to education, and in the number of accademical foundations, the Americans exhibit a public spirit with which we are proud to claim kindred. The great body of the people are, as regards the rudiments of knowledge, far in advance of the English. All can read and write; and to give his children an education is the first concern of every parent. The oldest college in the U. States is Harvard College, at Cambridge, in Massachusetts, founded in 1638, only eighteen years after the first settlement at Plymouth. Yale College was founded in 1700. Besides these there are in the Union about fifty Colleges authorised to confer degrees. The number of benevolent and religious institutions in America, supported by voluntary contributions, is almost incalculable. Their Bible Societies, Missionary Societies, Prison Discipline Societies, Penitentiaries, Asylums, &c., are the noble results and evidences of a public spirit, an enlightened philanthropy, and a religious zeal, which certainly can find a parallel only in the parent country.—*British Magazine.*

Domestic Economy.

Transparent Pudding.—Beat eight eggs very light, add half a pound of pounded sugar, the same of fresh butter melted, and half a nutmeg grated; set it on a stove and keep stirring till it is thick as buttered eggs—put a puff paste in a shallow dish, pour in the ingredients, and bake it half an hour in a moderate oven—sift sugar over it and serve it up hot.

Rice Milk for a dessert.—Boil half a pint of rice in water till tender, pour off the water and add a pint of milk, with two eggs beaten well stirred into it—boil all together two or three minutes—serve it up hot, and eat it with butter, sugar and nutmeg. It may be sweetened and cooled in molds, turned out in a deep dish, and surrounded with rich milk, with raspberry marmelade stirred into it, and strained to keep back the seeds, or the milk may be seasoned with wine and sugar.

To color Green.—Take half a pound of the oil of vitriol, one ounce of indigo, pulverized; put them in a bottle, shake it repeatedly three or four days; then put it in a hickory bark dye, with two pounds of alum. This mixture will color twelve pounds of yarn. It is to be simmered over the fire several hours, frequently taking it out to air, on a pole over the kettle; you can dye it in iron, copper, or brass, when the yarn is dry, wash it in cold water; the hickory dye is to be taken off the fire when the mixture is put in out of the bottle, or it will run over; for the hickory dye must be boiling hot when it is put in.

To color Orange.—Make a strong soap suds, enough to cover your yarn well; put the arronetta in a bag, let it lay all the night in the soap suds; next morning rub it out, then put in as much strong lye as you can without rotting your yarn; put it on the fire and let it nearly come to a simmer, before you put in the yarn, raise it frequently and air it, and add more lye if you wish it deeper; eight ounces will dye twenty cuts.

To color Red.—To three pounds of yarn, take one pound of alum, and one pound of madder; dissolve your alum in a sufficient quantity of water to cover your yarn; scald it well in that water, then rinse it well in pure water; mix wheat bran and water to the consistence of thin gruel, a sufficient quantity to cover the yarn well; mix the madder well in this preparation; put in the yarn and boil two or three hours, stirring and keeping it loose in the vessel. If you do not wish it deep, take it out in a very short time, but let it remain several hours if yon wish it deep. Rinse it in cold water after letting it air. The bran must be boiled the night before, and a crock part full taken out and strained, and the madder put in to raise the rest, strained in the morning, and that in the crock mixed with the other, before put on to boil.

To color Yllow.—Take three-fourths of hickory bark, with the outside shaved off, and one-fourth of black oak bark done in the same manner, boil them well together in a bell mettle kettle until the color is deep, then add alum sufficient to make it foam, when stirred up, then put your yarn in, and let it simmer a little while, take it out and air it two or three times, having a pole over the kettle to hang it on, so that it may drain in the kettle; when dry rinse it in cold water.—*Tennessee Far.*